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(H)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/996,768	12/23/97	WENDEL A	P61750US0

HM12/0427

JACOBSON PRICE HOLMAN & STERN
JENIFER BUILDING
400 SEVENTH STREET NW
WASHINGTON DC 20004

EXAMINER	
HINES, J	
ART UNIT	**PAPER NUMBER**
1641	11

DATE MAILED: 04/27/99

Please find below and/or attached an Office communication concerning this application or pr ceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/996,768	Applicant(s) Wendel et al.
	Examiner Ja-Na Hines	Group Art Unit 1641

☒ Responsive to communication(s) filed on *Mar 26, 1999*.

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *19-29* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *19-29* is/are rejected.

☒ Claim(s) *22, 23, and 26* is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

1. The Examiner acknowledges amended claims 19-29 and the cancellation of claims 1-18 filed on December 23, 1997. Claims 19-29 are pending in this Office Action.

Specification

2. **Content of Specification**

(a) Title of the Invention: See 37 CFR 1.72(a). The title of the invention should be placed at the top of the first page of the specification. It should be brief but technically accurate and descriptive, preferably from two to seven words.

(b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.

© Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.

(d) Reference to a "Microfiche Appendix": See 37CFR 1.96© and MPEP § 608.05. The total number of microfiche and the total number frames should be specified.

(e) Background of the Invention: The specification should set forth the Background of the Invention in two parts:

(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."

(2) Description of the Related Art: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

(f) Brief Summary of the Invention: A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

(g) Brief Description of the Several Views of the Drawing(s): A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

(h) Detailed Description of the Invention: A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. This item may also be titled "Best Mode for Carrying Out the Invention." Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

(I) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet. (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps.

(j) Abstract of the Disclosure: A brief narrative of the disclosure as a whole in a single paragraph of 250 words or less on a separate sheet following the claims.

(k) Drawings: See 37 CFR 1.81, 1.83-1.85, and MPEP § 608.02.

(l) Sequence Listing: See 37 CFR 1.821-1.825.

Drawings

3. The drawings are objected to for reasons set forth on NOTICE OF DRAFTSPERSON"S PATENT DRAWING REVIEW (PTO-948). Correction is required.

Claim Objections

4. Claim 26 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 26 is identical to claim 25 and does not further limit claim 21.

5. Claims 22 and 23 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 22 and 23 recite the use of clotting inhibitors, no further limitation of the anticoagulants of claim 19 can be determined.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 19-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are vague because it is incomplete. The claims lacks a correlation step that relates the immunofunctional, toxic and/or modulatory reaction to the exposure to test materials.

7. Claim 20 is indefinite. The term "immune-related data" is unclear. The metes and bounds of the term are indefinite.

8. Claim 21-26 are indefinite. Claim 21 recites the limitation "the group" in the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

9. Claims 21-24 are rejected under 35 U.S.C. 102(a) as being anticipated by Sobota et al. Sobota et al., teaches the use of lymphocytes for assessment of the immunological effects of interferon therapy (abstract). Experiments designed to investigate the kinetics of immunological responses require comparison of peripheral blood samples collected at various time intervals over a prolonged period of time (page 2 para. 1). Such experiments should preferably assess the activity of all peripheral blood samples under standard conditioned, with identical controls, and repeated reproducibility (page 2 para. 1). For this purpose , programmed freezing of peripheral blood could be used if the freezing does not change the proportions and activity of the peripheral

blood samples (page 2 para. 1). Sobota et al., also teaches that cryopreserved PBL were as good as fresh PBL for in vitro immunological assays (page 8 para. 2). Frozen peripheral blood lymphocytes (PBL) and frozen leukocytes did not lose their ability to secrete gamma IFN (abstract). The findings were used to investigate immunological effects of interferon therapy (abstract). Cryopreserved samples enabled the in vitro comparison of the reactivity of PBL's from normal patients' cells and carcinoma cells (abstract). Enzyme-linked immunospot (ELISPOT) assays was performed on the different cell types (abstract). The lymphocytes from patients were heparinized (page 2 para. 4). When freezing the samples, the samples were suspended in Fetal Calf Serum (FCS) and DMSO and a specific concentration into 1ml samples (page 2 para .4). The frozen samples were stored in liquid nitrogen until use (page 2 para. 4). The PBL samples were assayed by a variety of methods including flow cytometry, proliferative response assays, cytolytic activity assays and ELISPOT detection (pages 3-4).

Therefore, Sobota et al., teaches the instant invention as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 19-20 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wendel et al. (EPA 741,294, DE Appl. 19, 516,247), in view of Sobota et al. Wendel et al., teaches a method for examining substances for pyrogenic activity. The whole blood containing preparations are brought into contact with the substances to be tested and then the preparations are examined for the formation of endogenous pyrogens. The preparations can contain coagulation inhibitors as well as diluents such as cell culture medium or physiological saline. Tests that measure the formation of the endogenous pyrogens include measurements of interleukin-1, interleukin-6, tumor necrosis factor, or PGE_2. However, Wendel et al., is silent to the use of frozen whole blood and cryopreservation.

Sobotoa et al., has been discussed above, however Sobota et al., did not teach the uuse of frozen blood.

Therefore, it would have been obvious to have used the frozen blood samples and cryopreservation of blood as taught by Sobota et al., in the method of Wendel et al., because frozen blood does not lose its ability to function and cryopreservation can be stored until use and this would provide an advantage in the method of Wendel et al.

Response to Arguments

11. Claims 1-5 and 10-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. The is rejection is withdrawn in view of applicants amendments.

12. Claims 1-5 and 10-15 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Sobota et al.. The rejection is withdrawn in view of applicants amendments.

13. Claims 1-5 and 10-15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Busch et al. Or Durrant et al., or Martin et al., or Venkataraman. These rejections are withdrawn in view of applicants amendments.

Prior Art

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Allsopp et al., teaches different responses on the cryopreservation of peripheral blood. Busch et al., teaches the evaluation of screened blood donations. Durrant et al., teaches the use of cryopreserved PBLs. Martin et al., teaches cytokine and bioassays. Venkataraman teaches cryopreserved-induced enhancement of interleukin-2 production in human peripheral blood.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ja-Na Hines whose telephone number is (703) 305-0487. The examiner can normally be reached on Monday through Thursday from 6:30am to 4:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's super visor, James Housel, can be reached on (703) 308-4027. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Ja-Na Hines

April 26, 1999

James C. Housel 4/26/99
JAMES C. HOUSEL
SUPERVISORY PATENT EXAMINER